

David A Vanden Bout

List of Publications by Year in descending order

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115
papers

5,343
citations

71102

41
h-index

88630

70
g-index

118
all docs

118
docs citations

118
times ranked

5959
citing authors

#	ARTICLE	IF	CITATIONS
1	Moisture-Driven Formation and Growth of Quasi-2-D Organolead Halide Perovskite Crystallites. <i>ACS Applied Energy Materials</i> , 2020, 3, 6280-6290.	5.1	11
2	Synthesis and folding behaviour of poly(<i>p</i> -phenylene vinylene)-based $\hat{1}^2$ -sheet polychromophores. <i>Chemical Science</i> , 2019, 10, 2144-2152.	7.4	18
3	The effect of local lithium surface chemistry and topography on solid electrolyte interphase composition and dendrite nucleation. <i>Journal of Materials Chemistry A</i> , 2019, 7, 14882-14894.	10.3	45
4	Effects of molecular architecture on morphology and photophysics in conjugated polymers: from single molecules to bulk. <i>Chemical Science</i> , 2018, 9, 1101-1111.	7.4	31
5	Hydrogen peroxide production via a redox reaction of <i>N,N</i> -dimethyl-2,6-diaza-9,10-anthraquinonediium by addition of bisulfite. <i>Chemical Communications</i> , 2018, 54, 11204-11207.	4.1	6
6	Controlling the folding of conjugated polymers at the single molecule level via hydrogen bonding. <i>Polymer Chemistry</i> , 2017, 8, 1188-1195.	3.9	8
7	Reversible and Irreversible Electric Field Induced Morphological and Interfacial Transformations of Hybrid Lead Iodide Perovskites. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 33478-33483.	8.0	27
8	Impact of backbone fluorination on nanoscale morphology and excitonic coupling in polythiophenes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 5113-5118.	7.1	46
9	Effect of Electron Transport Material on Light-Induced Degradation of Inverted Planar Junction Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1700476.	19.5	103
10	Revealing the Chemistry and Morphology of Buried Donor/Acceptor Interfaces in Organic Photovoltaics. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 2764-2773.	4.6	15
11	Probing the molecular weight dependent intramolecular interactions in single molecules of PCDTBT. <i>Journal of Materials Chemistry C</i> , 2017, 5, 9786-9791.	5.5	9
12	Directing the Conformation of Oligo(phenylenevinylene) Polychromophores with Rigid, Nonconjugatable Morphons. <i>Macromolecules</i> , 2016, 49, 3838-3844.	4.8	19
13	Plastic Microgroove Solar Cells Using CuInSe_2 Nanocrystals. <i>ACS Energy Letters</i> , 2016, 1, 1021-1027.	17.4	13
14	When is a single molecule heterogeneous? A multidimensional answer and its application to dynamics near the glass transition. <i>Journal of Chemical Physics</i> , 2015, 143, 024110.	3.0	18
15	Oligomeric interface modifiers in hybrid polymer solar cell prototypes investigated by fluorescence voltage spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 10640-10647.	2.8	6
16	Using lateral bulk heterojunctions to study the effects of additives on PTB7:PC61BM space charge regions. <i>Synthetic Metals</i> , 2015, 209, 158-163.	3.9	2
17	An insight into non-emissive excited states in conjugated polymers. <i>Nature Communications</i> , 2015, 6, 8246.	12.8	48
18	Aggregation Behavior of Rod-Coil-Rod Triblock Copolymers in a Coil-Selective Solvent. <i>Journal of Physical Chemistry B</i> , 2015, 119, 330-337.	2.6	7

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19	Synthesis of a Donor–Acceptor Diblock Copolymer via Two Mechanistically Distinct, Sequential Polymerizations Using a Single Catalyst. <i>Macromolecular Rapid Communications</i> , 2014, 35, 204-209.	3.9	19
20	Correlation of Morphology with Photocurrent Generation in a Polymer Blend Photovoltaic Device. <i>Small</i> , 2014, 10, 1821-1829.	10.0	6
21	Direct Measurement of Energy Migration in Supramolecular Carbocyanine Dye Nanotubes. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 2274-2282.	4.6	71
22	Temperature-Dependent Exciton Properties of Two Cylindrical J-Aggregates. <i>Journal of Physical Chemistry C</i> , 2014, 118, 24325-24334.	3.1	20
23	Excitonic Energy Migration in Conjugated Polymers: The Critical Role of Interchain Morphology. <i>Journal of the American Chemical Society</i> , 2014, 136, 16023-16031.	13.7	41
24	Room Temperature Electrodeposition of Molybdenum Sulfide for Catalytic and Photoluminescence Applications. <i>ACS Nano</i> , 2013, 7, 8199-8205.	14.6	92
25	Influence of Composition on the Performance of Sintered Cu(In,Ga)Se ₂ Nanocrystal Thin-Film Photovoltaic Devices. <i>ChemSusChem</i> , 2013, 6, 481-486.	6.8	33
26	Chromophore-Controlled Self-Assembly of Highly Ordered Polymer Nanostructures. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 2520-2524.	4.6	22
27	Control of Interface Order by Inverse Quasi-Epitaxial Growth of Squaraine/Fullerene Thin Film Photovoltaics. <i>ACS Nano</i> , 2013, 7, 9268-9275.	14.6	59
28	Quantifying the Polarization of Exciton Transitions in Double-Walled Nanotubular J-Aggregates. <i>Journal of Physical Chemistry C</i> , 2013, 117, 26473-26481.	3.1	29
29	Effect of interfacial dipoles on charge traps in organic–inorganic hybrid solar cells. <i>Journal of Materials Chemistry A</i> , 2013, 1, 3258.	10.3	9
30	Copper Indium Gallium Selenide (CIGS) Photovoltaic Devices Made Using Multistep Selenization of Nanocrystal Films. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 9134-9140.	8.0	52
31	Perylene diimide functionalized polynorbornene: a macromolecular scaffold for supramolecular self-assembly. <i>Journal of Materials Chemistry C</i> , 2013, 1, 8060.	5.5	9
32	Device Physics and Operation of Lateral Bulk Heterojunction Devices. <i>Journal of Physical Chemistry B</i> , 2013, 117, 4503-4509.	2.6	9
33	Mimicking Conjugated Polymer Thin-Film Photophysics with a Well-Defined Triblock Copolymer in Solution. <i>Journal of Physical Chemistry B</i> , 2013, 117, 4170-4176.	2.6	20
34	Effect of the Side-Chain Distribution Density on the Single-Conjugated Polymer Chain Conformation. <i>ChemPhysChem</i> , 2013, 14, 4143-4148.	2.1	28
35	Unraveling the chromophoric disorder of poly(3-hexylthiophene). <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, E3550-6.	7.1	70
36	Spectrophotometric Titration of Bimetallic Metal Cation Binding in Polyamido(amine) Dendrimer Templates. <i>Analytical Chemistry</i> , 2012, 84, 5154-5158.	6.5	12

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37	Scanning photocurrent microscopy of lateral organic bulk heterojunctions. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 13199.	2.8	21
38	Conformational Effect on Energy Transfer in Single Polythiophene Chains. <i>Journal of Physical Chemistry B</i> , 2012, 116, 9866-9872.	2.6	27
39	Unmasking Bulk Exciton Traps and Interchain Electronic Interactions with Single Conjugated Polymer Aggregates. <i>ACS Nano</i> , 2012, 6, 523-529.	14.6	30
40	The Effects of Aggregation on Electronic and Optical Properties of Oligothiophene Particles. <i>ACS Nano</i> , 2012, 6, 5507-5513.	14.6	34
41	A Mobile Precursor Determines Amyloid- β Peptide Fibril Formation at Interfaces. <i>Journal of the American Chemical Society</i> , 2012, 134, 14172-14178.	13.7	81
42	Nanoscale fluorescence imaging with quantum dot near-field electroluminescence. <i>Applied Physics Letters</i> , 2012, 101, 043118.	3.3	21
43	Spectroelectrochemical Investigation of an Electrogenerated Graphitic Oxide Solid-Electrolyte Interphase. <i>Analytical Chemistry</i> , 2012, 84, 8190-8197.	6.5	11
44	Carbon Optically Transparent Electrodes for Electrogenerated Chemiluminescence. <i>Langmuir</i> , 2012, 28, 1604-1610.	3.5	17
45	Well-Defined Alternating Copolymers of Oligo(phenylenevinylene)s and Flexible Chains. <i>Macromolecules</i> , 2012, 45, 5051-5057.	4.8	28
46	Utilizing redox-chemistry to elucidate the nature of exciton transitions in supramolecular dye nanotubes. <i>Nature Chemistry</i> , 2012, 4, 655-662.	13.6	174
47	Conformation and Energy Transfer in Single Conjugated Polymers. <i>Accounts of Chemical Research</i> , 2012, 45, 1992-2001.	15.6	82
48	Singular Value Decomposition Analysis of Spectroelectrochemical Redox Chemistry in Supramolecular Dye Nanotubes. <i>Journal of Physical Chemistry C</i> , 2011, 115, 14978-14987.	3.1	10
49	Electronic Energy Transfer in Highly Aligned MEH-PPV Single Chains. <i>Journal of Physical Chemistry B</i> , 2011, 115, 9941-9947.	2.6	42
50	Molecular Weight Effect on the formation of β Phase Poly(9,9-dioctylfluorene) in Dilute Solutions. <i>Journal of Physical Chemistry B</i> , 2011, 115, 12380-12385.	2.6	35
51	Regioregularity and Single Polythiophene Chain Conformation. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 1400-1404.	4.6	104
52	Single- and Double-Layer Graphenes as Ultrabarriers for Fluorescent Polymer Films. <i>Journal of Physical Chemistry C</i> , 2011, 115, 23057-23061.	3.1	19
53	Aqueous Electrogenerated Chemiluminescence of Self-Assembled Double-Walled Tubular J-Aggregates of Amphiphilic Cyanine Dyes. <i>Journal of Physical Chemistry C</i> , 2011, 115, 2470-2475.	3.1	28
54	Self-assembly of highly ordered conjugated polymer aggregates with long-range energy transfer. <i>Nature Materials</i> , 2011, 10, 942-946.	27.5	112

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55	Regioregularity effect on conformation and opto-electronic properties in single polythiophene chains. Proceedings of SPIE, 2011, , .	0.8	1
56	A Spectroscopic Study of 2-[4-(Dimethylamino)phenyl]-benzothiazole Binding to Insulin Amyloid Fibrils. Journal of Fluorescence, 2010, 20, 881-889.	2.5	5
57	Mapping Spatial Heterogeneity in Cu(In _{1-x} Ga _x)Se ₂ Nanocrystal-Based Photovoltaics with Scanning Photocurrent and Fluorescence Microscopy. Small, 2010, 6, 2832-2836.	10.0	22
58	Graphene-Based Optically Transparent Electrodes for Spectroelectrochemistry in the UV-Vis Region. Small, 2010, 6, 184-189.	10.0	86
59	Photoinitiated Growth of Sub-7 nm Silver Nanowires within a Chemically Active Organic Nanotubular Template. Journal of the American Chemical Society, 2010, 132, 2104-2105.	13.7	83
60	The effects of photochemical oxidation and chain conformation on green emission of poly(9,9-dioctylfluorene). Applied Physics A: Materials Science and Processing, 2009, 95, 241-247.	2.3	12
61	Uniform exciton fluorescence from individual molecular nanotubes immobilized on solid substrates. Nature Nanotechnology, 2009, 4, 658-663.	31.5	199
62	Nonexponential Relaxation of Poly(cyclohexyl acrylate): Comparison of Single-Molecule and Ensemble Fluorescence Studies. Journal of Physical Chemistry B, 2009, 113, 2253-2261.	2.6	23
63	UV-vis Spectroscopy and Cyclic Voltammetry Investigations of Tubular J-Aggregates of Amphiphilic Cyanine Dyes. ECS Transactions, 2009, 16, 77-84.	0.5	4
64	Near-Field Scanning Optical Microscopy Measurements of Fluorescent Molecular Probes Binding to Insulin Amyloid Fibrils. Journal of Physical Chemistry B, 2009, 113, 12090-12095.	2.6	52
65	Synthesis and Catalytic Evaluation of Dendrimer-Encapsulated Cu Nanoparticles. An Undergraduate Experiment Exploring Catalytic Nanomaterials. Journal of Chemical Education, 2009, 86, 368.	2.3	86
66	Evaluation of Lithium Ion Insertion Reactivity via Electrochromic Diffraction-Based Imaging. Langmuir, 2009, 25, 2508-2518.	3.5	19
67	Spectroelectrochemical Investigation of Double-Walled Tubular J-Aggregates of Amphiphilic Cyanine Dyes. Journal of Physical Chemistry C, 2008, 112, 1260-1268.	3.1	44
68	Direct Fabrication of Nanoscale Light Emitting Diode on Silicon Probe Tip for Scanning Microscopy. Journal of Microelectromechanical Systems, 2008, 17, 4-10.	2.5	22
69	Near-field Scanning Optical Microscopy; Breaking the diffraction limit using nano light emitting probe tip. , 2008, , .		0
70	Analysis of orientational dynamics of single fluorophore trajectories from three-angle polarization experiments. Journal of Chemical Physics, 2008, 128, 244501.	3.0	22
71	Near-Field Scanning Optical Imaging with Monolithic Silicon Light Emitting Diode on Probe Tip. , 2008, , .		1
72	Near-field scanning optical microscopy with monolithic silicon light emitting diode on probe tip. Applied Physics Letters, 2008, 92, .	3.3	19

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73	Near-field scanning optical micro probe integrated with a nanometer-sized light emitting diode. , 2007, , .		0
74	Effect of Film Morphology on the Energy Transfer to Emissive Green Defects in Dialkyl Polyfluorenes. <i>Macromolecules</i> , 2007, 40, 4524-4529.	4.8	18
75	Determining if a System is Heterogeneous: The Analysis of Single Molecule Rotational Correlation Functions and Their Limitations. <i>Journal of Fluorescence</i> , 2007, 17, 797-804.	2.5	31
76	The effect of solvent quality on the chain morphology in solutions of poly(9,9- $\text{di}o\text{ctylfluorene}$). <i>Polymer</i> , 2007, 48, 2322-2330.	3.8	69
77	Effect of finite trajectory length on the correlation function analysis of single molecule data. <i>Journal of Chemical Physics</i> , 2006, 125, 124701.	3.0	65
78	Optical studies of Poly[p-(2,5-didodecylphenylene)ethynylene] in Thin Films. <i>Materials Research Society Symposia Proceedings</i> , 2006, 937, 1.	0.1	0
79	Time-Resolved Fluorescence Near-Field Scanning Optical Microscopy Studies of Conjugated Polymer Thin Films. <i>ACS Symposium Series</i> , 2005, , 12-24.	0.5	0
80	Photophysics of Poly[p-(2,5-didodecylphenylene)ethynylene] in Thin Films. <i>Macromolecules</i> , 2005, 38, 5892-5896.	4.8	59
81	Origins of Nonexponential Decay in Single Molecule Measurements of Rotational Dynamics. <i>Physical Review Letters</i> , 2005, 95, 173001.	7.8	50
82	Fully time-resolved near-field scanning optical microscopy fluorescence imaging. <i>Analytica Chimica Acta</i> , 2003, 496, 259-266.	5.4	9
83	Resource Letter: LBMOM-1: Laser-based modern optical microscopy. <i>American Journal of Physics</i> , 2003, 71, 429-436.	0.7	2
84	Standard sample probes for characterizing optical apertures in near-field scanning optical microscopy. <i>Review of Scientific Instruments</i> , 2003, 74, 2424-2428.	1.3	4
85	Comparison of ensemble and single molecule approaches to probing polymer relaxation dynamics near T_g . <i>Journal of Chemical Physics</i> , 2002, 116, 5850-5856.	3.0	20
86	Near-Field Scanning Optical Microscopy Studies of Nanoscale Order in Thermally Annealed Films of Poly(9,9-dialkylfluorene). <i>Langmuir</i> , 2002, 18, 897-903.	3.5	55
87	Heterogeneous Dynamics and Domains in Supercooledo-Terphenyl: A Single Molecule Study. <i>Journal of Physical Chemistry B</i> , 2002, 106, 11438-11445.	2.6	105
88	Single molecule photobleaching: increasing photon yield and survival time through suppression of two-step photolysis. <i>Chemical Physics Letters</i> , 2002, 365, 387-395.	2.6	79
89	A Study of Excimer Emission in Solutions of Poly(9,9-dioctylfluorene) Using Electrogenerated Chemiluminescence. <i>Journal of Physical Chemistry A</i> , 2001, 105, 520-523.	2.5	117
90	Molecular Motions in Polymer Films near the Glass Transition: A Single Molecule Study of Rotational Dynamics. <i>Journal of Physical Chemistry B</i> , 2001, 105, 11978-11985.	2.6	37

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91	Imaging Molecular and Nanoscale Order in Conjugated Polymer Thin Films with Near-field Scanning Optical Microscopy. <i>Journal of the American Chemical Society</i> , 2001, 123, 3605-3606.	13.7	73
92	Fluorescence Lifetime Imaging with Near-Field Scanning Optical Microscopy. <i>Analytical Chemistry</i> , 2001, 73, 3257-3262.	6.5	31
93	Near-field scanning optical microscopy (NSOM) study of alkyl-substituted polyfluorene films: the affect of alkyl substituent length on nanoscale polymer ordering and cluster formation.. <i>Macromolecular Symposia</i> , 2001, 167, 153-166.	0.7	11
94	An in Situ Study of Metal Complexation by an Immobilized Synthetic Biopolymer Using Tapping Mode Liquid Cell Atomic Force Microscopy. <i>Analytical Chemistry</i> , 2001, 73, 4087-4095.	6.5	20
95	Multiphoton excitation as a probe for biological fractionations. , 2001, , .		0
96	Mesoscopic Structures of Organic Molecular Crystal Thin Films Studied by Near-Field Scanning Optical Microscopy. <i>Molecular Crystals and Liquid Crystals</i> , 2001, 371, 147-150.	0.3	0
97	Single-Molecule Studies of Heterogeneous Dynamics in Polymer Melts Near the Glass Transition. <i>Science</i> , 2001, 292, 255-258.	12.6	205
98	Effects of Molecular Oxygen on Multiphoton-Excited Photochemical Analysis of Hydroxyindoles. <i>Analytical Chemistry</i> , 2000, 72, 3821-3825.	6.5	17
99	Near-Field Scanning Optical Microscopy (NSOM) Studies of Nanoscale Polymer Ordering in Pristine Films of Poly(9,9-dialkylfluorene). <i>Journal of Physical Chemistry B</i> , 2000, 104, 9378-9387.	2.6	68
100	Classifying the Photophysical Dynamics of Single- and Multiple-Chromophoric Molecules by Single Molecule Spectroscopy. <i>Journal of Physical Chemistry A</i> , 1998, 102, 7564-7575.	2.5	281
101	Ultrafast Raman Echo Measurements of Vibrational Dephasing and the Nature of Solventâ€™Solute Interactions. <i>Accounts of Chemical Research</i> , 1997, 30, 65-71.	15.6	74
102	Discrete Intensity Jumps and Intramolecular Electronic Energy Transfer in the Spectroscopy of Single Conjugated Polymer Molecules. <i>Science</i> , 1997, 277, 1074-1077.	12.6	508
103	Near-Field Optical Studies of Thin-Film Mesostructured Organic Materials. <i>Accounts of Chemical Research</i> , 1997, 30, 204-212.	15.6	91
104	A Molecular Yarn:Â Near-Field Optical Studies of Self-Assembled, Flexible, Fluorescent Fibers. <i>Journal of the American Chemical Society</i> , 1996, 118, 4049-4058.	13.7	128
105	Application of mode-coupling theory to solvation dynamics. <i>Physical Review E</i> , 1996, 54, 2786-2796.	2.1	25
106	Spatially and temporally resolved emission from aggregates in conjugated polymers. <i>Physical Review B</i> , 1996, 54, R3683-R3686.	3.2	106
107	Transient Hole Burning in Liquids. <i>Molecular Crystals and Liquid Crystals</i> , 1996, 283, 101-107.	0.3	1
108	Polarization-Modulation Near-Field Scanning Optical Microscopy of Mesostructured Materials. <i>The Journal of Physical Chemistry</i> , 1996, 100, 13794-13803.	2.9	75

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109	Spatially Resolved Spectral Inhomogeneities in Small Molecular Crystals Studied by Near-Field Scanning Optical Microscopy. <i>The Journal of Physical Chemistry</i> , 1996, 100, 11843-11849.	2.9	45
110	Ultrafast Raman echo experiments in liquids. <i>Journal of Raman Spectroscopy</i> , 1995, 26, 503-511.	2.5	25
111	Transient hole burning of sâ€tetrazine in propylene carbonate: A comparison of mechanical and dielectric theories of solvation. <i>Journal of Chemical Physics</i> , 1995, 103, 9146-9160.	3.0	90
112	Raman echo studies of attractive and repulsive forces in the coupling of solvents to vibrational motion. <i>AIP Conference Proceedings</i> , 1994, , .	0.4	0
113	Rapid, homogeneous vibrational dephasing in ethanol at low temperatures determined by Raman echo measurements. <i>Chemical Physics Letters</i> , 1994, 229, 87-92.	2.6	30
114	Broadening of vibrational lines by attractive forces: Ultrafast Raman echo experiments in a CH ₃ I:CDCl ₃ mixture. <i>Journal of Chemical Physics</i> , 1993, 99, 810-819.	3.0	102
115	Ultrafast Raman echo experiments in the liquid phase. , 1992, , .		0